Foreword

Paradigm shifts, described in the 1940's by Thomas Kuhn as the essence of scientific revolution, are changes in our fundamental perspectives of how the world works. They disrupt the status quo, destroy outdated ideas, and open the way to new possibilities. They integrate separate developments, and solve "impossible" problems.

Advances in computer technology challenge our current security standards and perspectives. We can no longer think just in terms of single systems, like those addressed in the Trusted Computer System Evaluation Criteria (TCSEC or Orange Book), or in bounded networks, like those in the Trusted Network Interpretation (TNI or Red Book). We need new paradigms.

This workshop, started in 1992, invited leading computer security researchers to present ideas for new security paradigms to a small workshop of their peers. Our only requirement was that each participant bring a new paradigm evolving from a deep experience in computer security. The results were remarkable and attracted worldwide attention. Partly as a result of our efforts, the INFOSEC community is supporting new paradigms such as the Department of Defense Goal Security Architecture (DGSA) and the Common Criteria.

Twenty researchers attended the 1995 New Security Paradigms Workshop, held in August at the Residence Inn in La Jolla, California. Eleven of them presented papers, which are published here.

We thank the Program Co-Chairs, Catherine Meadows and John Dobson, for putting together a thought-provoking program. We appreciate the time and insight invested by the program committee, as well as the efforts of the other committee members, who are all listed on the next page. We thank Deborah Hamilton for producing these proceedings with Regina Spencer Sipple of the IEEE Computer Society Press.

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The next New Security Paradigms Workshop will be held September 16-17 in Lake Arrowhead, California. The Call for Papers appears in the back of this book, and we welcome your participation!

Hilary H. Hosmer
Founder and General Chair
New Security Paradigms Workshop '95